FILTER TEST
Using Color Filters To Control Contrast
For Making Paper Negatives

(*Spot Meter Used = Pentax Mod 5*)

FULL SUN = “Zone-5" = Reflected off East wall (Sun at 11:00 C.S.T.)
(ISO= 6 - Arista Photo Paper)

NOTE >> (*Know that these setting are NOT the exposure settings - they are only E.V. readings from my meter*)

No Filter Reading (Open Lens) =	12 E.V. Exposure = f-16 @ 1.0 Second
1. = Light Yellow Filter =	11.75 E.V. Exposure = f-16 @ 1.5 Sec.
2. = Medium Yellow Filter =	11.25 E.V. Exposure f-16 @ 1.5 Sec.
3.= Light Orange Filter =	11.00 E.V. Exposure f-16 @ 2.0 Sec.
4.= Dark Orange Filter =	10.25 E.V. Exposure f-16 @ 3.0 Sec.
5.= Green Filter =	9.25 E.V. Exposure f-16 @ 6 Sec.
6.= U.V. Filter =	11.5 E.V. Exposure f-16 @ 1.5 Sec.
7.= U.V. Filter (a little darker) =	11.25 E.V. Exposure f-16 @ 1.75 Sec.**
(Put the two U.V. Filters Together)	11.00 E.V. Exposure f-16 @ 2.0 Sec.**
8.= Polarizing Filter (turned to Maximum)	11.75 E.V. Exposure f-16 @ 3.0 Sec

= NOTE >> The use of the Two U.V. Filters Might give “odd readings”. ((*Remember that the use of these filters BLOCK U.V. light of the spectrum.... We can not see it = However = the Photo Paper (ALL PAPERS) are very sensitive to the U.V. part of the light spectrum.*) ***Each reading was through each of the filters*.)

Remember to TEST your particular Spot Meter. Not just the batteries, I mean KNOW your meter (or whatever you are currently using). All light meters are Not The Same. And in that there may be problems. So - With that in mind, Please Know That My Findings might not be correct for you. Also your choice of Development Chemistry, mainly that of the developer. (I currently use my mix of “Ansco-120" I have found that this *“soft developer*” works for me in what I want.) Also, notwithstanding, the dilution of the developers. (I am currently using a 1:4 to 1:6 ratio = (1 chemical to that of 4 or 6 parts water) - And there are times when I add a little Potassium Bromide, to “quiet-down” the strength. (Or Add a little more water.)

The total outcome was a little surprising, and a few, as with the U.V. and Polarizing filters, expected. All Photographic Print Paper is very sensitive to U.V. part of the light spectrum. So by “blocking” this invisible light to the human eye - you are “restricting” the exposure, even when you do not see it (*That is because the emulsion of the paper does “see” it.*)

The times of the development varied somewhat. From 35 Seconds (too quickly for my tastes) to that of over 2 minutes. (After two or three minutes what I have found using any developer that a degrading of the image occurs and only will decrease the quality of the intended negative image. - Some artists/experimenters like that sort of “look” for their work.... And that is good = for them.) Some folks like anchovies on their pizza, and some like pineapple.

(The exposure settings are taken with my Pentax “V” spot meter, through the filters of each exposure pointed as a “Zone-5" area. (i.e. my gray stone wall about 45 feet distance from camera.)

As afore mentioned on page One - The numbers you read on page one, are ONLY “E.V. numbers” from the dial of the spot meter - These are NOT the exposure settings to get the image recorded. ((NOTE >> (*Know that these setting are NOT the exposure settings - they are only E.V. readings from my meter*)))

>> E.V.= Exposure Value <<

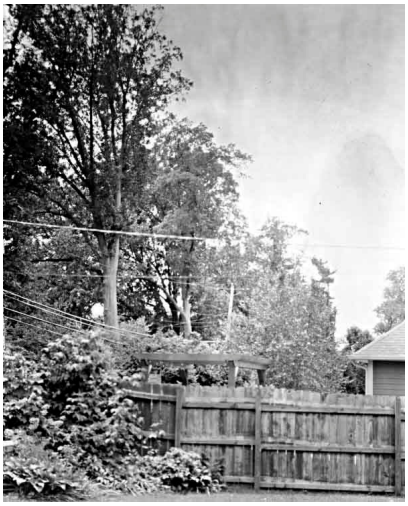
My Spot Meter

– Image Examples --

Negative 1 (control)

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
NO Filter - (Control)
f-8 @ 1/4 Sec.

Positive #1



Negative 2

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Yellow Filter
f-8 @ 1/2 Sec.

Positive #2

Negative 3

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Orange #16 Filter
f-8 @ 1/2 Sec.

Positive #3

Negative 4

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Green Filter
f-8 @ 1 Sec.

Positive #4

Negative 5

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
U.V. Filter
f-8 @ 1 Sec.

Positive #5

Negative 6

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Polarizing Filter
f-8 @ 1-1/2 Sec.

Positive #6

Negative 7

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
2 Yellow Filters (stacked)
f-8 @ 1/5 Sec.

Positive #7

Negative 8

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
2 Orange Filters (Stacked)
f-8 @ 1 Sec.

Positive #8

Negative 9

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Yellow+Green Filter (stacked)
f-8 @ 2 Sec.

Positive #9

Negative 10

Arista VC/RC = ISO=6
Toyo 4X5/ F-6.3/215mm Lens
Polarizing Filter
f-8 @ 4 Sec.

Positive #10

The exposures of these negatives are as true as the scanner can deliver. With the positives, however, I did do some light edits with the "plug-in" "Silver-Efex Pro" (NIK Software) in PhotoShop CS-5. (*Yeah! I Know it's an old program == Well! I am an "Old Photographer" - so we work well together.*) With knowing that only the negatives have not been altered, any photographer can "read" the negatives, and see the accrual unaltered image. Unlike Contact Printing, one may bring out the finer qualities of the positive image.

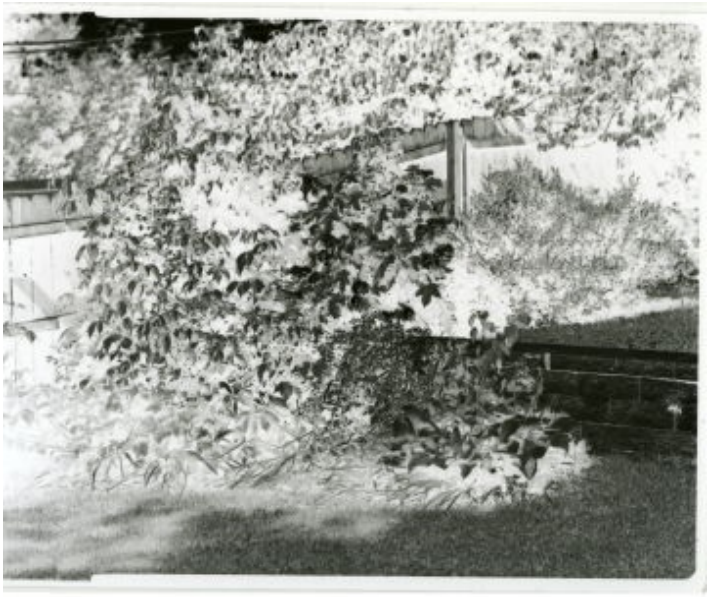
I have more "samples" of this filter experiment, that does not include the clouds of the sky - and therefore - concentrating on the effects of the filters on a smaller given area. The spread of the E.V. numbers for these were between an E.V. of 11 (the demist parts), to that of E.V. 15 (of the brighter areas). So - given that, I used an E.V. of 13 for the average. Setting the "common" f-Stop on f-8, I only varied the shutter times.

I respectfully suggest that anyone should perform test of this sort with their Paper Negatives - as we all know - there are a lot of variables in this process. The more you practice, the better one becomes with the image making.

Keep notes, READ everything you can - and enjoy this process.

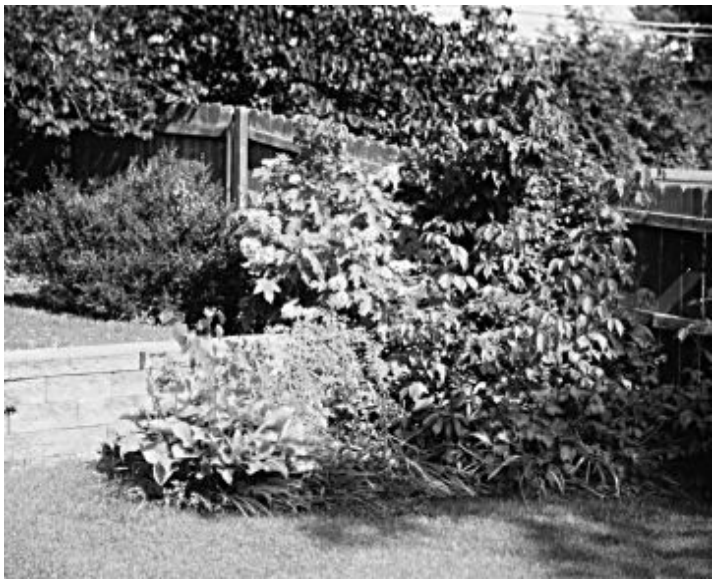
With this filter experiment I used two filters that I never used before. The U.V. Filter and a Polarizing Filter (*turned to Maximum effect*). Personally - I will never use these again. They block out too much of the U.V. light that the emulsion of the paper is contingent on for making an image with modern papers.

Negative “A”



Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/8 Sec. No Filter (Control Image)
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 45 sec.

Positive “A”



Negative “B”

Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/8 Sec. Yellow Filter
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 1 min

Positive “B”

Negative “C”

Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/8 Sec. Orange Filter
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 1 min

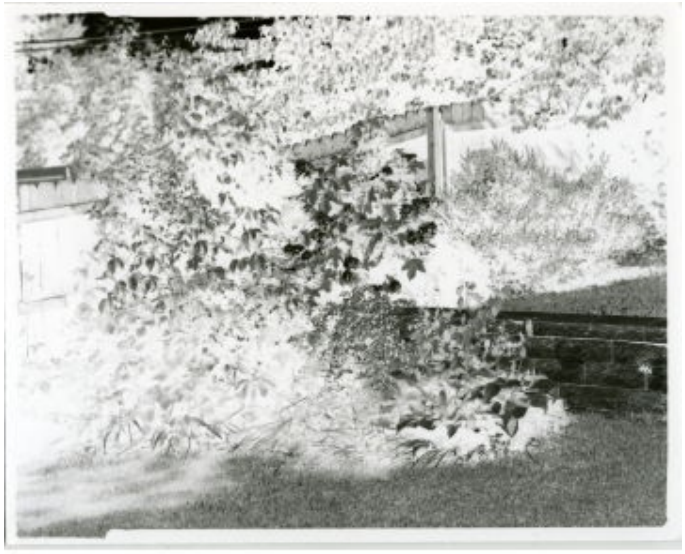
Positive “C”

Negative “D”

Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/5 Sec. Green Filter
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 1 min

Positive “D”

Negative “E”



Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/10 Sec. U.V. Filter
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 2 min 30 Sec.

Positive “E”

Negative “F”

Arista VC/RC - ISO= 6
Toyo 4X5 / 215mm F-6.3 Lens
f-8 @ 1/2 Sec. 2-U.V. Filters (stacked)
Dev. Ansco-120 Reg. Stop & Fixer
Dev. Time= 2 min 30 Sec.

Positive “F”

The Final details for this filter experiment are as follows:

Negative “A”:

The is the “Control Image”. Every experiment needs a place to begin. I follow somewhat the usual procedure with conducting my personal experimentations. All the other images are a result of the use of a filter. This is my “reference point. ISO-6 / f-8 at 1/8 Second of Shutter.

Negative “B”:

Metering through the filter (Yellow) I get an estimate of the exposure to use. In this case - I used f-8 at 1/8 of Shutter Speed. I have used the #2 Yellow filter exclusively when I have clouds in the sky, and wish to retain some of the lesser tones of the Grays.

Negative “C”:

As with “B” - I again metered through the filter (Orange) to achieve the results shown. I used f-8 at 1/5 of Shutter Speed. I have rarely used an Orange filter, as I find that the Yellow #2 works well for what I like.

Negative “D”

The Green Filter produced a image that was tolerable. However - I did have to apply some edits to bring out the best. I used f-8 with 1/5 Shutter Speed. (Perhaps a longer shutter time would be better?)

Negative “E”

This was the first time that I used a U.V. Filter. I did have my reservations as I know that photographic print papers are more reactive to U.V. The use of this particular filter caused problems with the exposure. Also - the development took a very long time in coming up in the developer. (Over 2.5 minutes.) And really never came to what I would consider a “full development”. I really had to do a lot of “digital tricks” to get a good positive image.

Negative “F”

OK! After the U.V. experience with Negative “E” - I thought... *“What the hell.... Just go for “broke” and stack two U.V. Filters together.*” Same exposure, and again same long development time and edit problems. If anyone wants to experiment more with the U.V Filter(s) - You have my “blessing” to go fourth and do so.

(May The Light Be With You - one and all.)

James R. Kyle, Photographer, Saint Louis, Missouri, U.S. of A.